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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,008	11/21/2000	Kenneth Perlin	KPER-4	9323

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Ansel M. Schwartz
One Sterling Plaza
Suite 304
201 N. Craig Street
Pittsburgh, PA 15213

EXAMINER	
WANG, JIN CHENG	

ART UNIT	PAPER NUMBER
2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)	
	09/718,008	PERLIN, KENNETH	
	Examiner	Art Unit	
	JIN-CHENG WANG	2628	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 16 July 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *13-16*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See below.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Jin-Cheng Wang/
Primary Examiner, Art Unit 2628

Continuation of Item 11:

1) Applicant argues with respect to the 112 rejection citing Page 16 of the Specification.

Page 16 of the Specification broadly recites and discloses "the above technique chooses a six bit quantity FOR each integer lattice point. This six bit quantity will then be used to choose a pseudo-random gradient vector", referring to an original Perlin noise algorithm (in another application).

The claim 13 specifically recites 'using a BIT-MANIPULATION to geneate a six bit quantity FROM an integer lattice point i, j, k; generating a gradient vector using the six bit quantity".

The claim 13 is not recited in the same manner as the Specification's disclosure for the following reasons.

The Specification at Page 16 does not discloses that a bit-manipulation is used to generate a six bit quantity FROM an integer lattice point i, j, k. Instead, the Specification at Page 16 discloses choosing a six bit quantity FOR each integer lattice point.

The Specification at Page 16 refers to an original Perlin noise algorithm (in yet another patent application) wherein the gradient vector is generated very differently from the present application.

The Specification at Pages 17-22 discloses that the lower six bits (a six bit quantity) from the last stage L modules is used to generate a gradient vector in a fixed set of 64 gradient vectors.

The Specification at Pages 17-22 does not disclose that a gradient vector is generated using a six bit quantity FROM each integer lattice point.

The gradient vector of the present invention is generated in accordance with the Specification at Pages 17-22, not according to the Specificaiton at Page 16.

MOREOVER,

Applicant refers to a passage describing the original Perlin noise algorithm. This passage refers to the original Perlin Noise algorithm or another Perlin Noise algorithm in another patent application. The present Specification discloses a different Perlin noise algorithm which maps the lower six bits from the last stage L modules into a fixed set of 64 gradient directions. The present Specification implementing L as a permutation table having only 64 6 bit entries SO AS TO decorrelate neighboring gradient directions.

Moreover the claim invention is flawed because each individual i,j,k is not the so-called integer lattice point. Instead, (i, j, k) is an integer lattice point. Moreover, the six bit quantity is not generated from i, j, k, as claimed, but from the lower six bits of the sum b(i, j, k,0)+b(j,k,i,1)+b(i,j,k,3)+b(j,k,i,4)+b(k,i,j,5)+b(i,j,k,6)+b(j,k,i,7) in the previous Perlin noise algorithm, which is described in yet another patent application totally differently from the present application. One at most can say generate a six bit quantity using an integer lattice point (i,j,k), as opposed "from" i,j,k as claimed.

Thus the claim limitation of using a bit-manipulation to generate a six bit quantity "from" an integer lattice point "i, j, k" is flawed since a six bit quantity is generated from lower six bits of the sum as above mentioned using the lattice point (i,j,k) and each individual i,j,k is not an integer lattice point. This generation is not described in the Specification.

Generating a gradient vector is described in Pages 17-20 of the Specification, not in Page 16. Page 16, lines 6-8 refer to the original Perlin noise algorithm. Pages 17-20 describes generating a gradient vector in the present application.

Moreover, The Specification describes in Page 19 mapping the lower six bits from the last stage L modules, rather than using the lower six bits of the sum as above mentioned, rather than generating from an integer lattice point i, j,k. The Specification describes mapping the lower six bits from the last stage L modules into a gradient vector in a fixed set of up to 64 gradient directions.

PLEASE REFER PAGES 17-20 of APPLICANT'S OWN SPECIFICATION For how the gradient vector is generated.

2) Applicant admitted in Page 16 that the original Perlin noise algorithm teaches choosing a six bit quantity for EACH integer lattice point (A TOTAL of eight lattice points surrounding the point (X, Y, Z)). Applicant misinterpreted his own Specification.

3) The cited reference teaches using/choosing six eight bit quantities i, j, k, u, v, w including choosing a six bit quantity; each i, j, k at least includes six bit quantity which is used to compute the gradient vector. The broad recitation of the claim invention is met.